

FIG. 1 (RELATED ART)

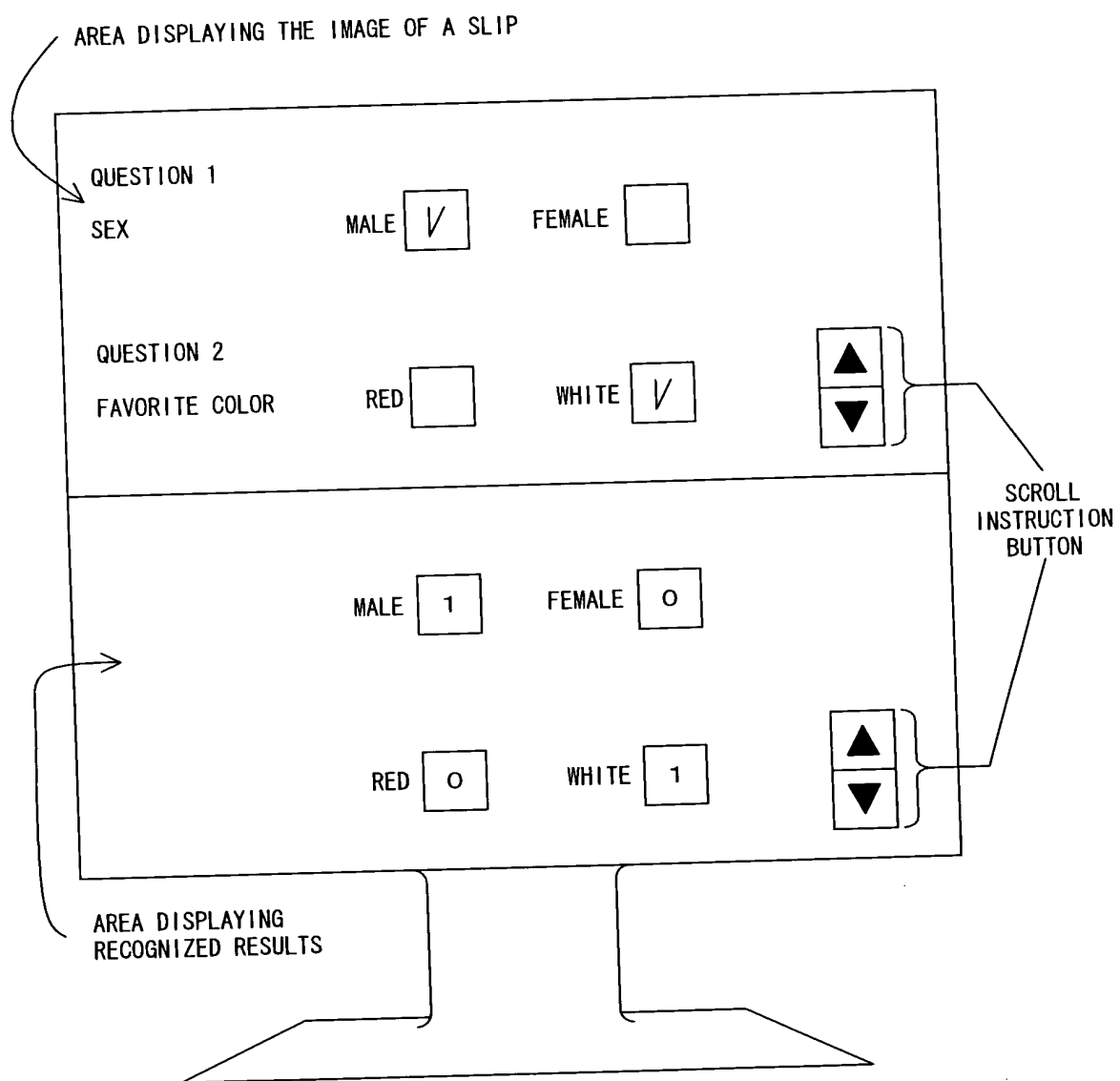


FIG. 2 (RELATED ART)

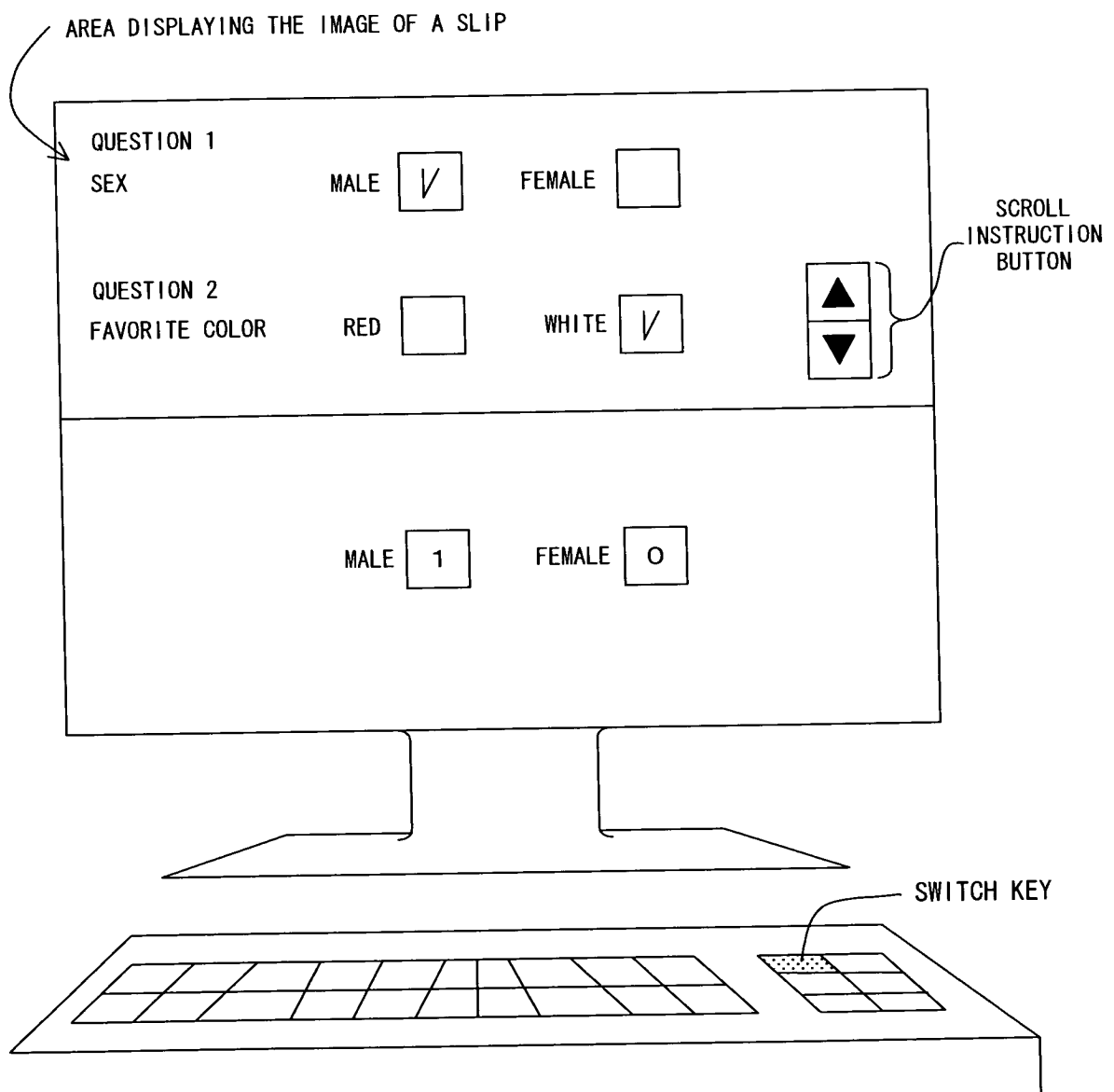


FIG. 3 (RELATED ART)

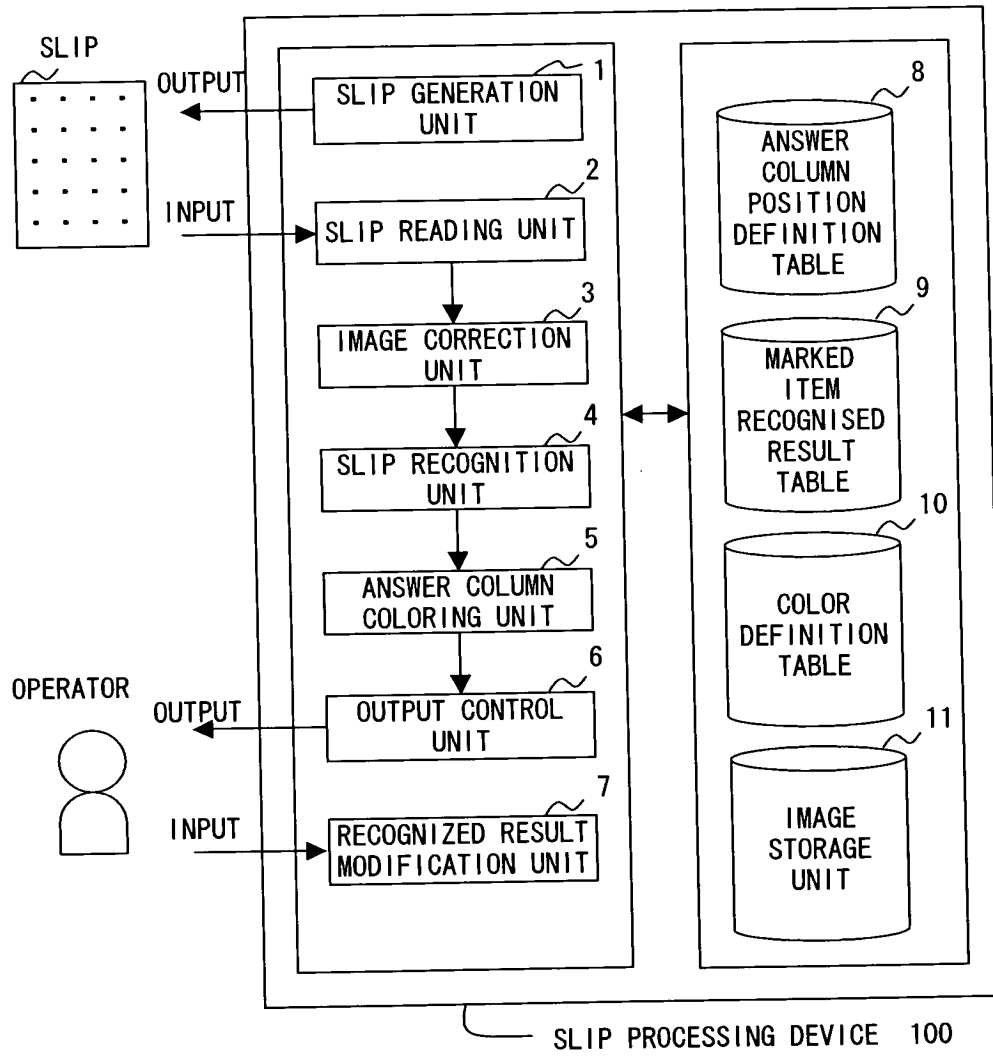


FIG. 4

ANSWER COLUMN POSITION DEFINITION TABLE

	START X-COORDINATE	START Y-COORDINATE		END X-COORDINATE	END Y-COORDINATE
QUESTION 1	10	15		50	20
MALE	20	15		25	20
FEMALE	30	15		35	20
QUESTION 2	10	30		50	35
RED	20	30		25	35
WHITE	30	30		35	35
.

F I G. 5

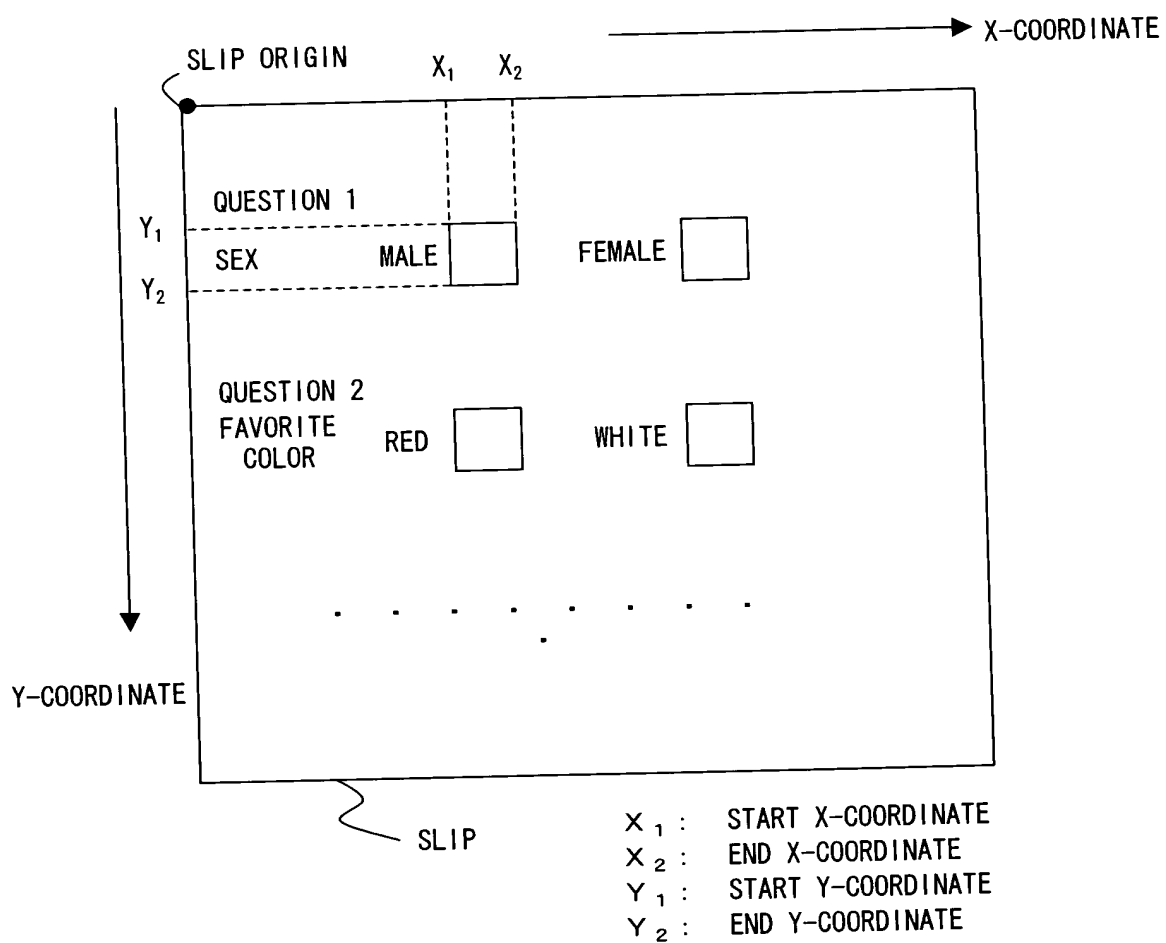


FIG. 6

MARKED ITEM RECOGNIZED
RESULT TABLE

MALE	1
FEMALE	0
RED	0
WHITE	1
.

F I G. 7


COLOR DEFINITION TABLE

RECOGNIZED RESULT INFORMATION	COLOR
1	RED
0	BLUE
2	GREEN

F I G. 8

DESIGN OF A SLIP
A SLIP IS GENERATED ON A SCREEN

QUESTION 1
SEX MALE ☐ FEMALE ☐
QUESTION 2
FAVORITE RED ☐ WHITE ☐
COLOR

PRINTS
THE SLIP


SLIP

QUESTION 1
SEX MALE ☐ FEMALE ☐
QUESTION 2
FAVORITE RED ☐ WHITE ☐
COLOR

FIG. 9 A

FIG. 9 B



THE POSITION OF QUESTIONS AND ANSWER COLUMNS ARE STORED
IN THE ANSWER COLUMN POSITION DEFINITION TABLE

ANSWER COLUMN DEFINITION TABLE

	START X-COORDINATE	START Y-COORDINATE	END X-COORDINATE	END Y-COORDINATE
QUESTION 1	10	15	50	20
MALE	20	15	25	20
FEMALE	30	15	35	20
QUESTION 2	10	30	50	35
RED	20	30	25	35
WHITE	30	30	35	35

FIG. 9 C

SLIP READING AND MARK RECOGNITION

QUESTION 1			
SEX	MALE	<input checked="" type="checkbox"/>	FEMALE <input type="checkbox"/>
QUESTION 2			
FAVORITE COLOR	RED	<input type="checkbox"/>	WHITE <input checked="" type="checkbox"/>

FIG. 10A



THE RECOGNIZED RESULTS OF ITEMS
ARE STORED IN A TABLE

MARKED ITEM RECOGNIZED RESULT TABLE

MALE	1
FEMALE	0
RED	0
WHITE	1

FIG. 10B



THE CHECK SCREEN IS DISPLAYED

QUESTION 1			
SEX	MALE	<input checked="" type="checkbox"/>	FEMALE <input type="checkbox"/>
QUESTION 2			
FAVORITE COLOR	RED	<input type="checkbox"/>	WHITE <input checked="" type="checkbox"/>
MALE	<input type="checkbox"/>	FEMALE	<input type="checkbox"/>
RED	<input type="checkbox"/>	WHITE	<input type="checkbox"/>

SLIP IMAGE

RECOGNIZED RESULT

FIG. 10C

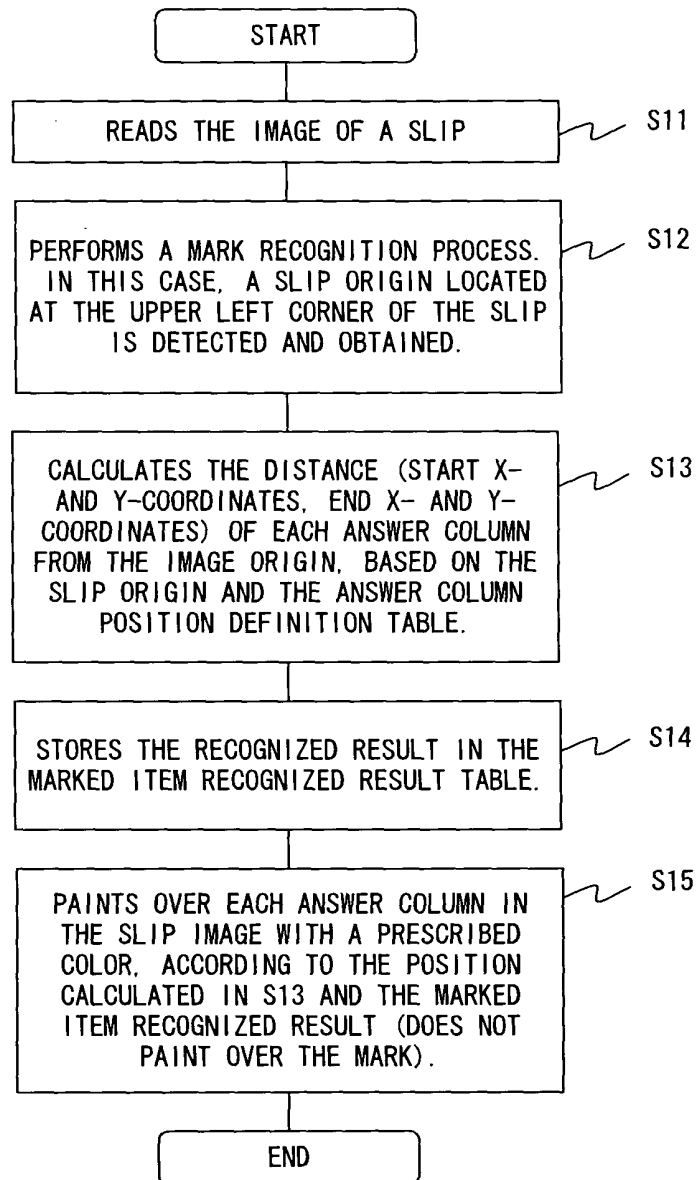
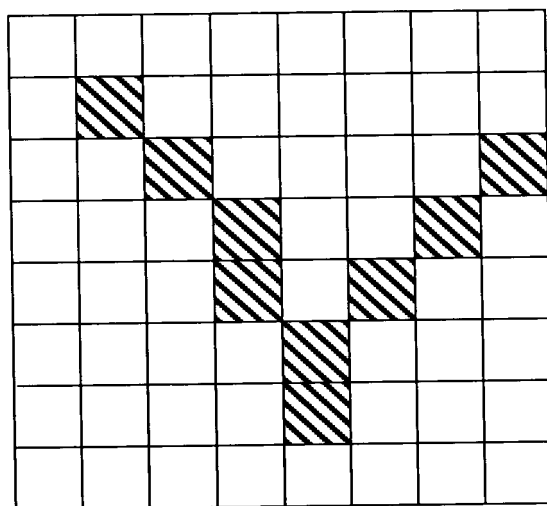


FIG. 11



F I G. 1 2

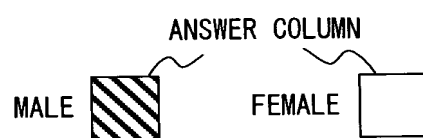


FIG. 13A

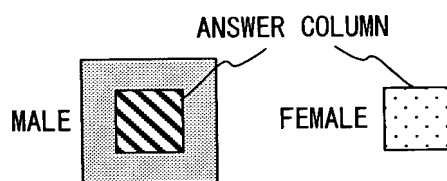


FIG. 13B

QUESTION 1
SEX MALE ☒ FEMALE ☐
QUESTION 2
FAVORETE RED ☐ WHITE ☒
COLOR

MALE ☐ FEMALE ☐
RED ☐ WHITE

FIG. 14A

MARKED ITEM RECOGNIZED RESULT TABLE

MALE	0
FEMALE	0
RED	0
WHITE	1

FIG. 14B



AN ANSWER COLUMN OF THE IMAGE DATA OR A FIELD OF THE RECOGNIZED RESULT IS SELECTED (IN FIG. 14A, AN ANSWER COLUMN CORRESPONDING TO AN ITEM "MALE" OR A FIELD OF THE RECOGNIZED RESULT IS SELECTED).



QUESTION 1
SEX MALE ☒ FEMALE ☐
QUESTION 2
FAVORITE RED ☐ WHITE ☒
COLOR

MALE FEMALE
RED WHITE

FIG. 14C

MARKED ITEM RECOGNIZED RESULT TABLE

MALE	1
FEMALE	0
RED	0
WHITE	1

FIG. 14D

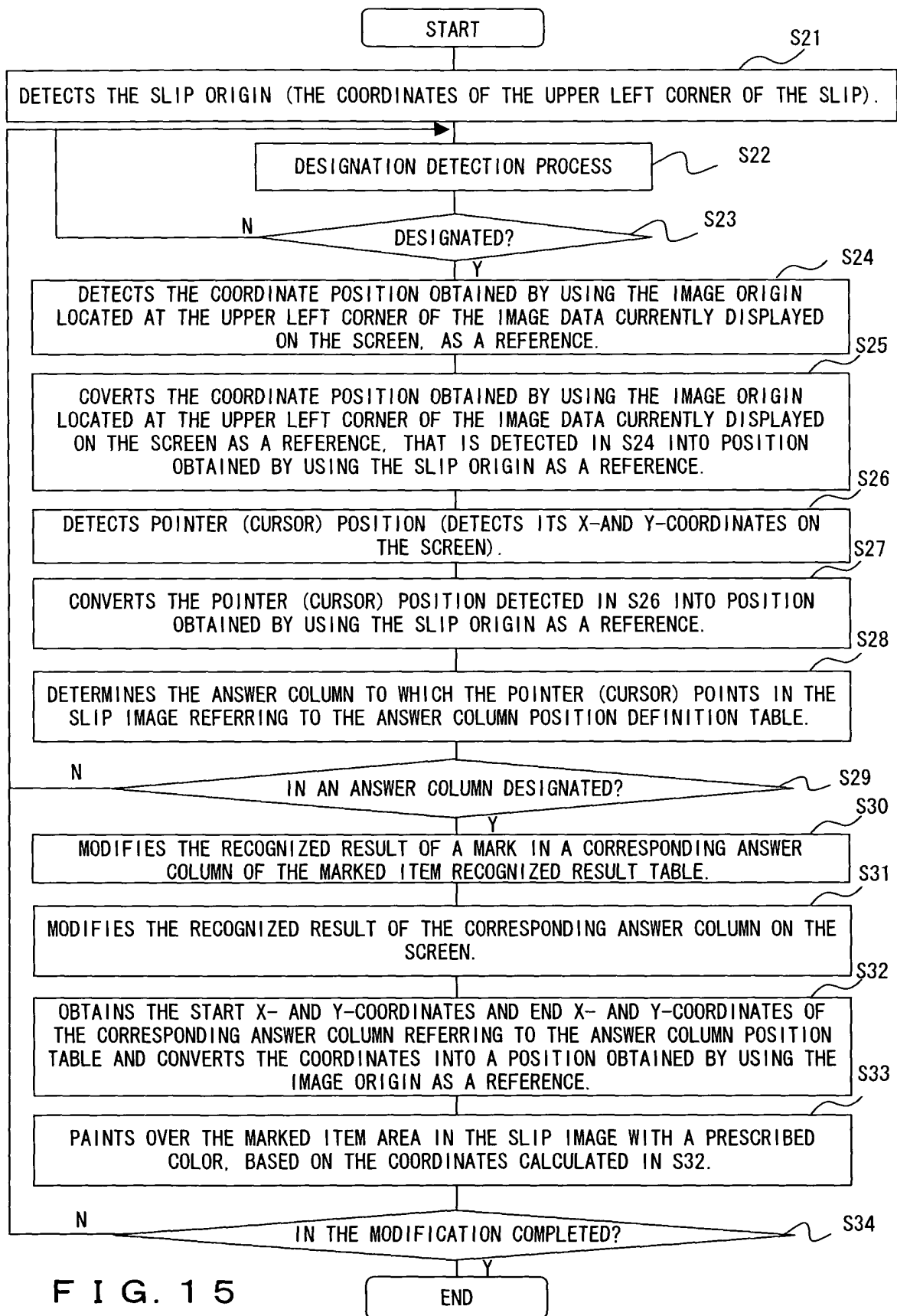


FIG. 15

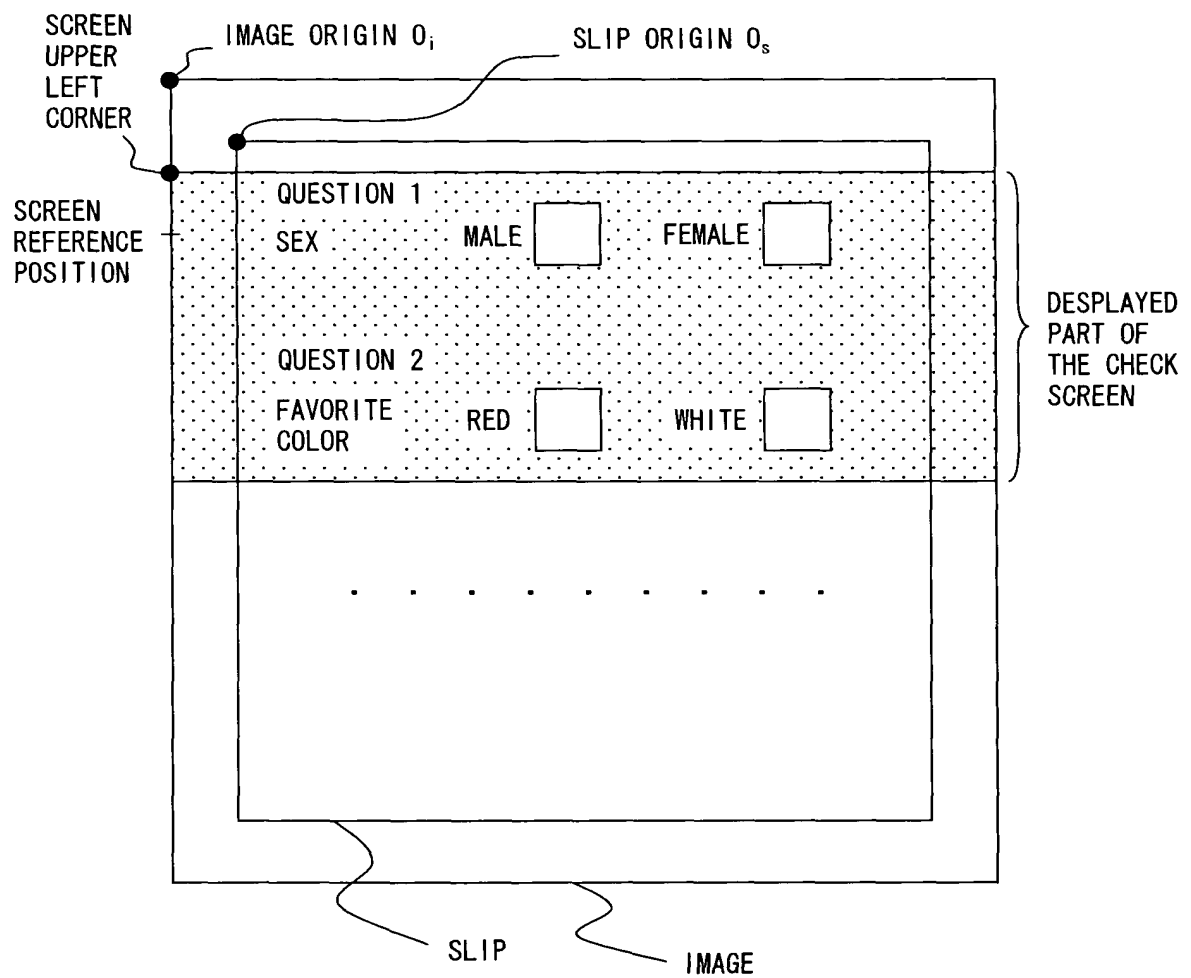


FIG. 16

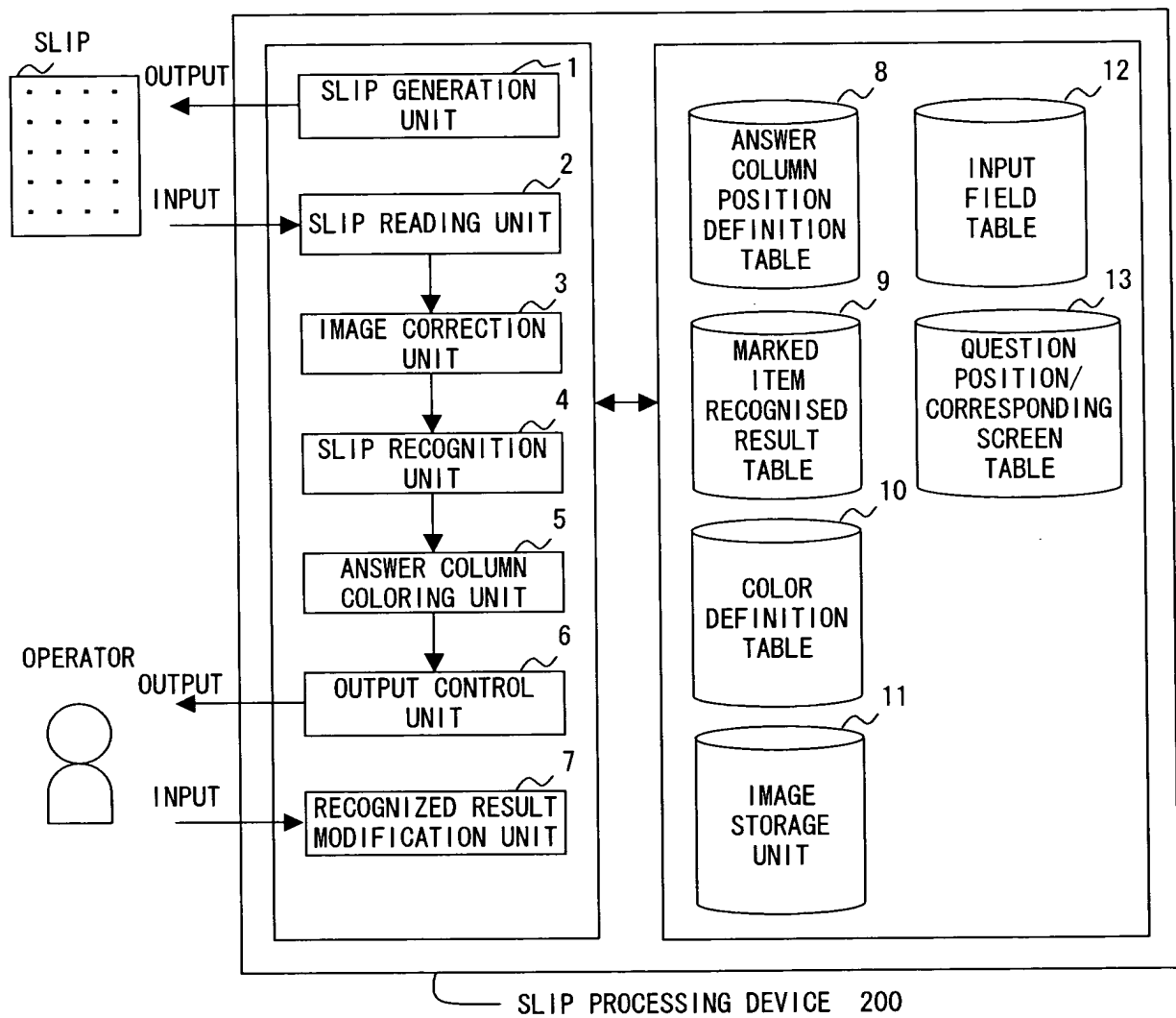


FIG. 17

QUESTION POSITION / CORRESPONDING SCREEN TABLE 13

	START Y-COORDINATE	END Y-COORDINATE	SCREEN NAME
QUESTION 1	15	20	A
QUESTION 2	30	35	B
.

F I G . 1 8

MALE

FEMALE

INPUT FIELD SCREEN FOR
QUESTION 1
(SCREEN A)

RED

WHITE

INPUT FIELD SCREEN FOR
QUESTION 2
(SCREEN B)

FIG. 19A



GENERATION OF A CORRESPONDENCE TABLE BETWEEN THE INPUT FIELD
SCREEN AND THE DISPLAYED IMAGE POSITION

THE FOLLOWING TABLE IS GENERATED BASED ON THE POSITION DEFINITION
INFORMATION STORED IN THE ANSWER COLUMN POSITION DEFINITION TABLE.

QUESTION POSITION/CORRESPONDING SCREEN TABLE			
	START Y-COORDINATE	END Y-COORDINATE	SCREEN NAME
QUESTION 1	15	20	A
QUESTION 2	30	35	B

FIG. 19B



AN INPUT FIELD SCREEN DISPLAYING THE RECOGNIZED RESULTS ABOUT THE
QUESTIONS DISPLAYED IN THE IMAGE DISPLAY AREA ON THE SCREEN IS
DISPLAYED IN THE RECOGNIZED RESULT DISPLAY AREA, BASED ON THE
TABLE.

DISPLAY EXAMPLE

REFERENCE POSITION →

QUESTION 1

SEX

MALE

☒

FEMALE

☐

QUESTION 2

FAVORITE

COLOR

RED

☐

WHITE

☒

MALE

☐

FEMALE

☐

FIG. 19C

IN THE IMAGE
IS SCROLLED
DOWNWARD.
SIMULTANEOUSLY,
THE INPUT
FIELD SCREEN IS
SYNCHRONOUSLY
SWITCHED.



QUESTION 2

FAVORITE

COLOR

RED

☐

WHITE

☒

.....

RED

☐

WHITE

☐

FIG. 19D

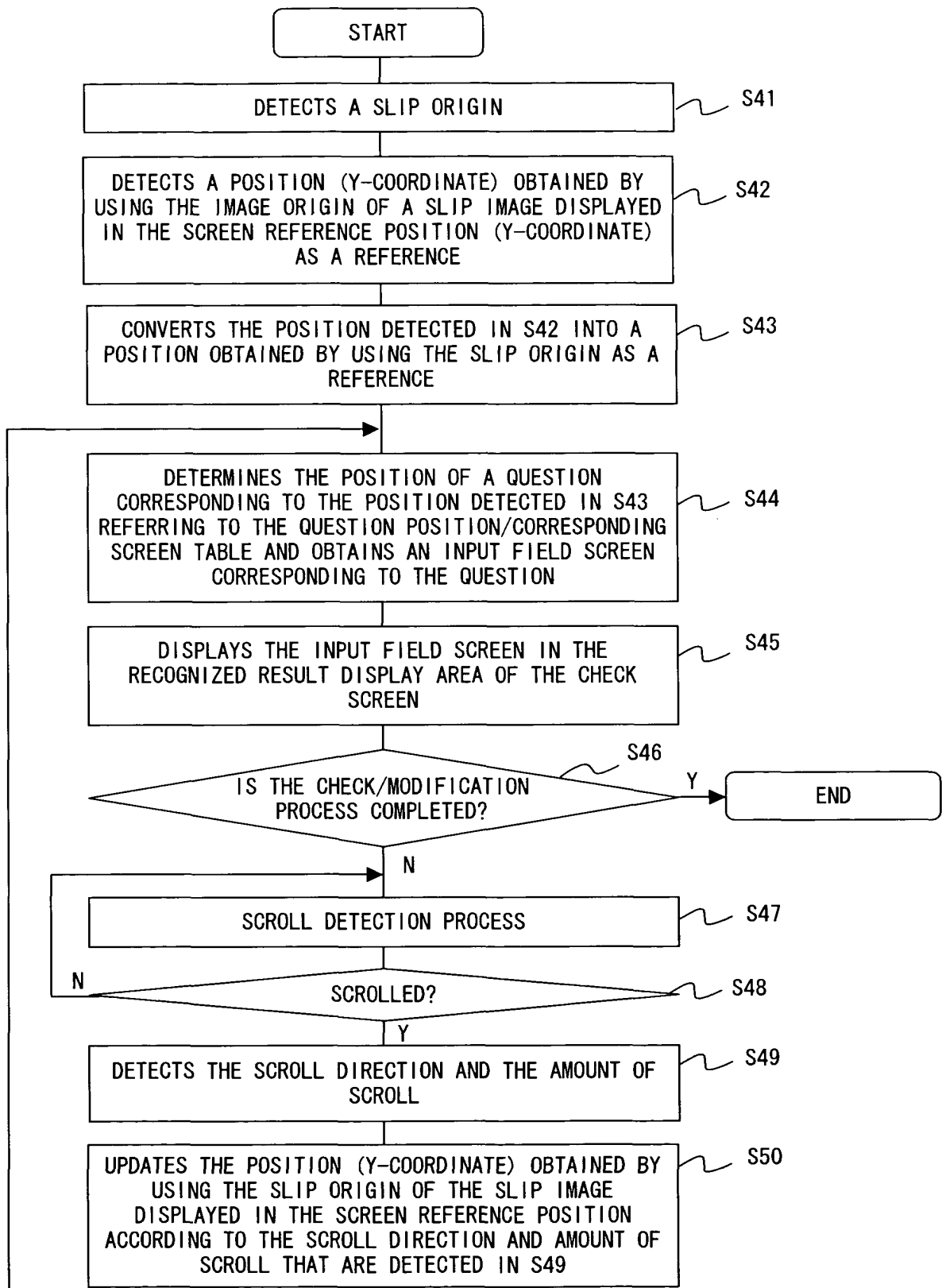
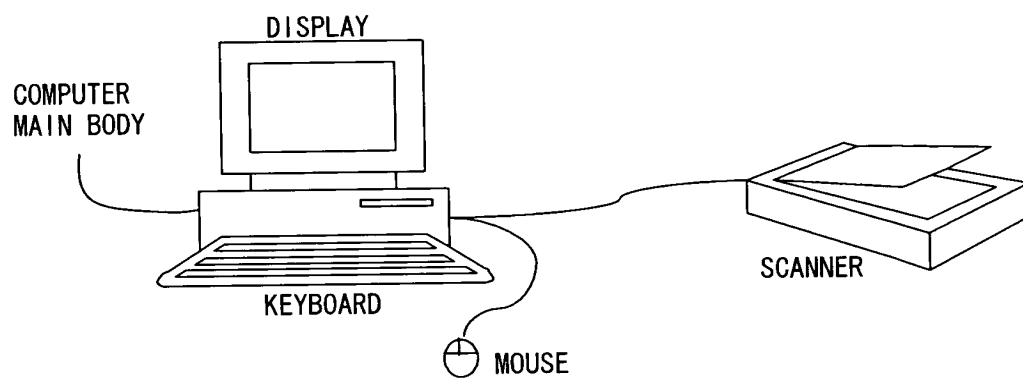


FIG. 20



SCANNER: INPUT DEVICE READING A SLIP IMAGE

F I G . 2 1

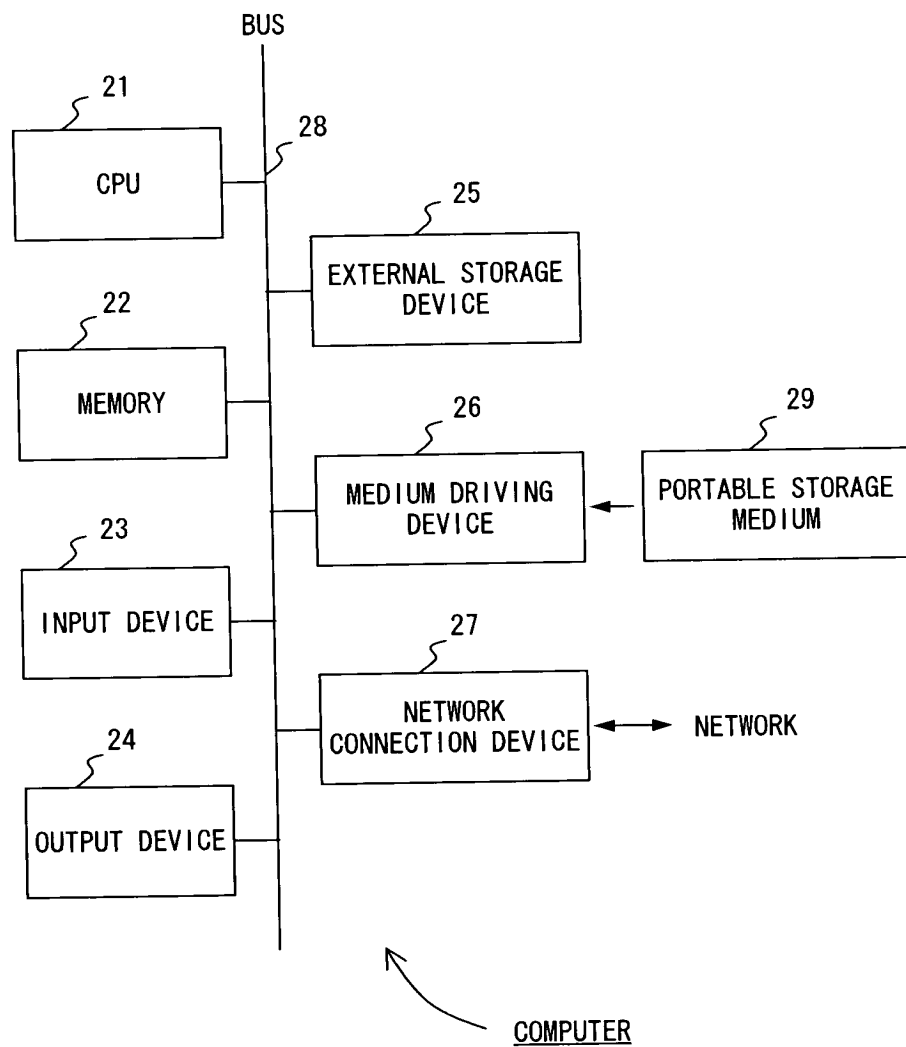


FIG. 22

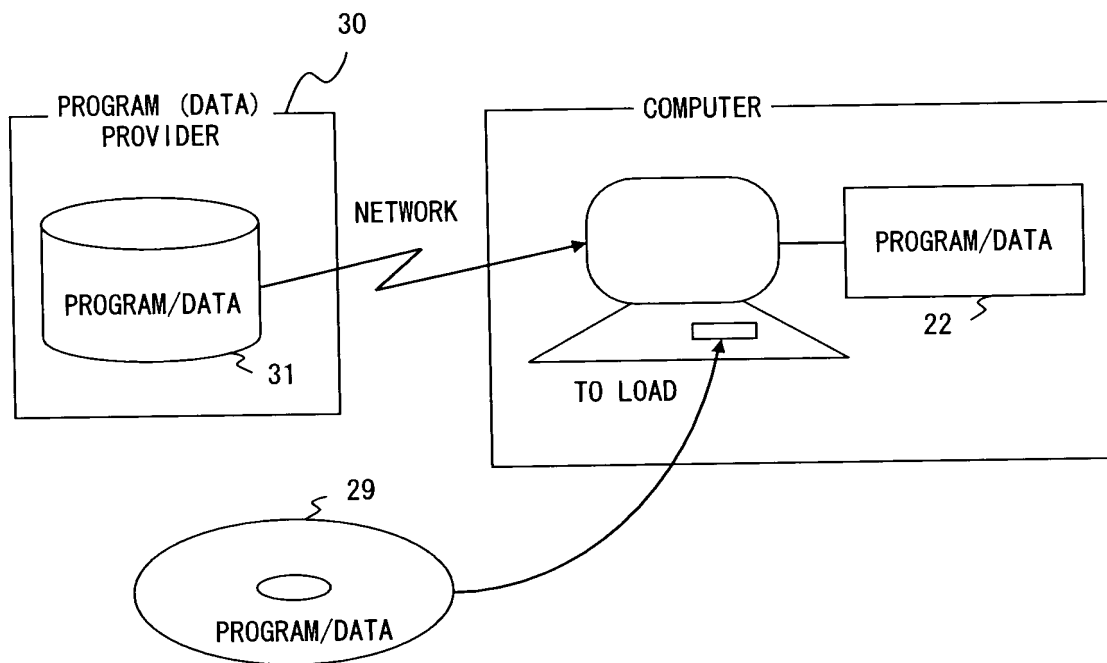


FIG. 23